

INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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COUNTRY	East Germany	REPORT	
SUBJECT	VEB Carl Zeiss Jena Research in Various Types of Barrier Layer Cells	DATE DISTR.	3 August 1955
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This is UNEVALUATED Information

APPRAISAL OF CONTENT IS TENTATIVE

1. VEB Carl Zeiss, Jena, is carrying out a fairly extensive research in the field of infrared and various types of barrier layer cells. Cells in which research and development work is at present in progress in the laboratories include:

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- a. Barrier layer cells: Selenium cells said to be for photographic exposure meters, range 200-900 mμ, sizes 5 mm - 150 mm.

- b. Resistance cells (Widerstand Zellen):

(1) Cadmium sulphide - used for switching devices giving only a pulse and not suitable for measuring devices; range visible to X-rays, sizes (field) 0.15 mm x 5 mm to 8 mm in cells about 3/4 inch.

(2) Cadmium selenite

(3) Lead sulphide (PbS)

Provision can be made for both (2) and (3) to be cooled with CO₂ for infrared work. Range is then 2.4μ to 3.5μ.

- c. Alkali cells (measuring cells):

(1) Cesium antimony, range U.V. to 250μ and 460 to 650μ.

(2) Cesium oxide, range 200 to 1100μ.

(3) Combination of cesium oxide and antimony.

(4) Photocells for sound film.

- d. Vacuum cells for electrometers:

(1) Special spherical cells with very high dark resistance 40 mA/lum. Made with cesium antimony or cesium oxide.

(2) Another type with lower resistance (10¹¹ Ω) for spectrometric work - 40 mA/lum.

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(Note: Washington distribution indicated by "X"; Field distribution by "#")

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Provision has been made for all the above cells to be fitted, if necessary, with quartz windows.

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